CRANE NATIONAL VENDORS

FACTORY TEST PROCEDURES
HOT DRINK CENTER - FINAL TEST

PURPOSE:	The purpose of this qualification test is to ensure the mechanical and electrical operation, and physical appearance of the Hot Drink Center merchandiser.
ASSEMBLY AFFECTED:	Hot Drink Center merchandiser, model 630/633/634/635/636/637/ 653/655/657.
USAGE:	This procedure is used to fill out the Hot Drink Center inspection sheets, part number 6330075.

REVISION DATE: C, April 3, 2003	
ISSUED BY:	DATE ISSUED:
APPROVED BY: (SOFTWARE)	DATE APPROVED:
APPROVED BY: (MECHANICAL)	DATE APPROVED:
APPROVED BY: (MANUFACTURING)	DATE APPROVED:
APPROVED BY: (QUALITY)	DATE APPROVED:

NOTE:

The bean window light must be installed and connected prior to hi-pot test.

1. Perform the continuity/dielectric test. This test must be successfully performed before continuing. Perform the test with the door both open and closed.
2. Install the water filter.
3. Install the coin mechanism as required.
4. Connect the water line to the machine.
5. With the machine power switch set to OFF, connect the machine to the appropriate voltage.
6. With the machine turned ON, verify that the credit display is illuminated, and the LED1 is ON and LED2 is flashing on the main controller.
    a. For foreign machines, verify that the fluorescent lights are OFF and all high voltage fans are OFF when the interlock is in the middle (door open) position.
    b. Pull out the foreign interlock switch. Verify on both foreign and domestic machines that the fluorescent lamp(s) are ON and any fans are ON.
    c. Load the cup turret(s) with a minimum of 20 cups each. Load the turrets in such a way that the turrets will have to advance.
    d. With the door open, the service light and door light should both be illuminated at this time.
    e. Press and hold the cabinet interlock switch. Verify that the exhaust fan (optional) is operating, that the bean window light is on, and that the service light goes out.
    f. Press the monetary door switch and verify that the cup turrets index and cups fall properly into the cup rings.
    g. Pull the interlock switch out to the ON position,. The service light should go out, the exhaust fan should operate and the bean window light and door light should both be illuminated.
7. Verify that all canisters are installed and correct. Check that the canister labels are correct.
8. Check the money box for proper fit.
9. Visually check the machine for any damaged or missing parts. Make note of this on work in process hold form.
10. Compare the work order to the machine. Verify that the machine is built and equipped as ordered.
11. Press and hold 

. While holding, press 
. The display shows the software version number.

12. Press ↓. The display should show the current time. Use the number keys to enter the correct time in 24 hour format.

13. Press ↓. The display shows CLEAR ALL.

14. Press and hold # CODE CLEAR. The display shows CLEARING. This means that the RAM is being cleared. The display will show FINISHED when complete.

15. Press ↓. The display shows DUMB MECH. Press EDIT to select the coin mech type.

16. Press ↓. The display shows NO VALIDTR. Press EDIT to enable the validator and to select the type.

17. Press ↓. The display shows NO CARD. Press EDIT to enable a card reader and select the type.

18. Press ↓. The display shows D J 0000. Use the selection pad and enter the correct configuration code from the configuration code sheet.

    a. Press EDIT to turn *Auto Door* ON (D+) or OFF (D-).

    b. Press J to turn *Whippers Enable* ON (J+) or OFF (J-).

19. Press ↓. The display shows COUNTRY US. Press EDIT to select the country of destination.

20. Press ↓. The display shows DSPLY TEST. Press * TEST START. All characters on the display should be illuminated.

    Press the service keys 1 through 0 and "#" on the function pad and press each selection key in turn. A beep should sound on every press.

21. Press ↓. The display shows CUP TEST. Press EDIT to drop one cup from each position. 1 PRICE and 2 FREE VEND INSERT control the individual rings. Adjust the rings as necessary. Drop a minimum of 3 cups from each ring when adjustments are complete.

22. Press ↓. The display shows DOOR TEST if Auto Door was selected. Press EDIT to check that the automatic delivery door opens and closes correctly. Adjust if necessary.

23. Press ↓. The display shows WHIP TEST. Use the selection keypad to check each whipper (1-5) right-to-left.

24. Press ↓. With the machine low on water, cups installed, and the waste pail empty, the display should read IN.0000L00. The numbers shown represent the 7 positions in this display. They are defined as follows:

    Position 1: Mug switch. If the machine is so equipped, actuating the mug switch will cause the **-** to be replaced by an M.

    Position 2: Key switch. If the machine is so equipped, actuating the free vend key switch will cause the **-** to be replaced by a K.

    Position 3: Waste pail. Raising the waste pail float will cause the **-** to be replaced by a P.

    Position 4: High level switch. If the water tank is full, the display will show IN.000H000. If the H is already displayed in position 4, drain water from the water tank and observe the display to see the three (3) states of the float:
    - As water is being drained, the H is replaced by a **-** .
    - As water continues to drain, the **-** at position 5 will be replaced by an L.
    - Once the L appears, stop draining water and allow the tank to refill.

    Position 5: Low level switch. If the water tank is not filled with water and the L is still displayed, watch the transition from low water to full. The display will then show IN.000H000.

    Positions 6 and 7: These indicate cup sold outs. Lift the cup stack and see the ring number appear in the display.

25. Press ↓. The display shows AUGER TEST. Use the selection keypad to select the desired auger (1 through 7 as per the machine configuration). Verify that all product augers and canisters function.

26. Press ↓. The display shows COND TEST. Check the augers as follows:

    Press # to check sugar, press 0 to check lightener, and press * to check sugar substitute.

27. Press  . The display shows AIR TEST. Press 

to check that the air compressor functions. Pinch the tubing between the “Y” and the barrel. Adjust the air pressure to 10-12 psi (while pinched).

NOTE:
Items 28 through 33 will not appear if a Freeze Dried Configuration is entered.

28. Press  . The display shows BREW TEST. Press 

to check the brewer operation. Place the brewer in the brew position.

29. Press  . The display shows SET GRIND.

30. Prior to checking the grinders for proper functioning, insert the gauge and verify the correct grinder setting. Remove the coffee canisters and install the test bean canisters.

NOTE:
Grinders that are set properly with the gauge do not require readjustment and should not be changed to vary the gram throw.

31. Press 

. The display shows DRY A. Press 

. Dry product 1 and its grinder will operate. Check that the canister functions properly and the grinder operates. Capture the grounds in a cup to check for proper bean grind. Check for excessive grinder noise and check to see if the grinder is rubbing the side panel. Press  and repeat the tests for grinder 2. Press 

when complete.

32. Press  . The display shows BREW RINSE. Press 

. The brewer will cycle, the filter paper will advance, and the brewer will clamp. Watch for leaks around the brewer barrel as the air compressor runs. When the brewer cycles, check that the filter paper does not travel in reverse.

33. Press  . The display shows BOWL RINSE. Press 

. The bowls will rinse.

34. Press  . The display shows TEMP 180. If the water temperature is at least 150°F, adjust the valves.

35. Press  . The display shows SET VALVE.

36. Press EDIT. The display shows VALVE 1. Press TEST START to do a test throw and calibrate.

    Make a minimum of three test throws per valve. Press ↓ to select the other valves.

    Adjust the following valves to these amounts, ±5cc:

Valve 1 - 220/200cc	Valve 5 -180cc
Valve 2 - 220/200cc	Valve 6 - 170cc
Valve 3 - 200cc	Valve 7 - 180cc
Valve 4 - 180cc	

37. Press EXIT STOP. The display shows SET VALVES.

38. Press ↓. The display shows TEST .00.

    - **If a dumb or MDB mech is installed:**

      Insert 1 nickel, 2 dimes, and 3 quarters. Verify that all the coins are accepted and that the display shows TEST 1.00.

      Press the coin return button. Verify that 1 nickel, 2 dimes, and 3 quarters were returned and that the display shows TEST .00.

      Insert a $1.00 coin. It should be accepted and registered, or dropped through to the coin return.

    - **If a validator is installed:**

      Insert a $1.00 bill. Verify that the display shows TEST 100.

      Press the coin return. Verify that any bill in escrow is returned (stacked bills can be recovered at the end of the test).

NOTE
If the machine is equipped with Debitek, DEX, printer, or any other option, those options must be verified functionally before signing off the machine.

39. Press ↓. The display shows ENGLISH. Press EDIT to select the language of the country of destination.

40. Press and hold the door switch to end the test. Verify that the display eventually shows an operational standby message.

41. Release the door switch and press 0 DIAGNOSTICS if necessary to enter the diagnostics mode. There should be no error messages.

42. Install the cup station in the machine. Adjust the mug sensor accordingly (optional).

43. Press 

, then close and lock the cabinet door. Check the alignment of the cabinet door to the machine as well as its proper function. Manually verify the operation of the delivery door. Check the alignment of the cup station to the door.

44. With the cabinet door closed and the machine set to *TEST*, insert one $1 bill, 2 quarters, 3 dimes, and 4 nickels for a credit of $2.00. (If the machine has no validator, substitute 2 quarters, 3 dimes, and 4 nickels for the dollar bill).

45. Make a small buy from the "**F**" selection. Verify that the selection performs correctly. Verify the **DRINK BEING SERVED** light functions (634/636 only). $1.40 in change should be returned. Verify that the correct change is received and falls properly into the coin cup.

46. If the machine is equipped with an optional mug sensor, insert your dark mug and make a selection. Verify the display shows that a mug is "seen".

47. Open the cabinet door and view any diagnostic messages. Correct any errors that are listed.

48. Press 

, then close and lock the cabinet door. Vend selection **A3**. Confirm that the machine functions properly. Open the door to gain access to the maintenance keypad, and repeat this step two more times.

49. **Machines with Millennia^{TM} styling only**: Close and lock the door. Check for any interference on the door trim. Press each of the keys on the selection pad and listen for a beep to indicate a keypress, or watch the display for the keys to be displayed. Drop several coins in the coin slot and verify all are credited properly. Press the coin return and check that all coins are returned and that they hit the coin cup properly.

50. Remove the cups from the cup drop, filter paper, etc.

51. Payout the remaining coins in the coin mechanism. While paying out, verify that the correct coin pays out for the key pressed. If the unit is equipped with a dumb or MDB coin mech press 

then "1", "2", "3" as necessary to recover all coins from the coin mechanism.

52. Check the money box and remove any coins.

53. Remove dollar bill(s) from the validator.

54. Remove the test coin mechanism and test validator as required.

55. Disconnect the water line and remove the water filter.

56. Confirm that the shutoff valve is open. Go to the TANK . FILL screen and press 

to activate inlet valves and allow them to drain. After 30 seconds, press 

. Close the shutoff valve.

57. If the machine is set for **EXEC MECH**, **DEX**, or **printer** options, install the simulator and test per procedure 4310048.

58. SureVend™ Check for Hot Drink and Cold Drink machines.

    a. Turn on the machine.
    b. Install the cup station.
    c. Press 

.
    d. Press  until CAL.LST XXX appears.
    e. The number XXX should be between 150 and 254 to be acceptable with the cup station installed.
    f. Place a large cup in the cup station to block the sensor. The number from step d. should drop to 10 or less. This is acceptable.
    g. Deviations from any of the above should be brought to the attention of Quality Assurance or Engineering (Dave Whitten).
    h. Verify the SureVend™ insert is present in the monetary door.

59. Turn off power to end the test.